



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/820,954	03/30/2001	David W. Cannell	05725.0637-00	7371

22852 7590 05/04/2006

FINNEGAN, HENDERSON, FARABOW, GARRETT & DUNNER  
LLP  
901 NEW YORK AVENUE, NW  
WASHINGTON, DC 20001-4413

EXAMINER
----------

SHARAREH, SHAHNAM J

ART UNIT	PAPER NUMBER
----------	--------------

1617

DATE MAILED: 05/04/2006

Please find below and/or attached an Office communication concerning this application or proceeding.



UNITED STATES PATENT AND TRADEMARK OFFICE

---

Commissioner for Patents  
United States Patent and Trademark Office  
P.O. Box 1450  
Alexandria, VA 22313-1450  
[www.uspto.gov](http://www.uspto.gov)

**MAILED**

**MAY 04 2006**

**GROUP 1600**

**BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES**

Application Number: 09/820,954  
Filing Date: March 30, 2001  
Appellant(s): CANNELL ET AL.

---

Ningling Wang  
For Appellant

**EXAMINER'S ANSWER**

This is in response to the appeal brief filed February 16, 2006 appealing from the Office action mailed March 23, 2005.

**(1) Real Party in Interest**

A statement identifying by name the real party in interest is contained in the brief.

**(2) Related Appeals and Interferences**

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

**(3) Status of Claims**

The statement of the status of claims contained in the brief is correct.

**(4) Status of Amendments After Final**

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

**(5) Summary of Claimed Subject Matter**

The summary of claimed subject matter contained in the brief is correct.

**(6) Grounds of Rejection to be Reviewed on Appeal**

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

**(7) Claims Appendix**

The copy of the appealed claims contained in the Appendix to the brief is correct.

### **8) Evidence Relied Upon**

5,866,142

Riordan

02-1999

Merck Index 11<sup>th</sup> ed.(1989) compound 4675 at Pages 751-752. (Examiner clarifies that the instant reference was incorrectly cited as Merck Index 7<sup>th</sup> ed in the record. However, only the 11<sup>th</sup> edition was considered as the sole evidence to show the structure of hyaluronic acid).

### **(9) Grounds of Rejection**

The following ground(s) of rejection are applicable to the appealed claims:

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 78-79 are rejected under 35 U.S.C. 102(b) as being anticipated by  
Riordan US Patent 5,866,142.

The instant claims are directed to compositions comprising at least one glucosamine and at least one additional aminoglycan other than glucosamine comprising at least one C5-C7 saccharide unit substituted with at least one amino group.

Riordan discloses compositions comprising N-acetyl-D-glucosamine and hyaluronic acid. (see abstract; col 7, lines 20-55; claims 13, 20-21). Hyaluronic acid which is a aminosaccharide comprising glucosamine and gluconic acid meets the instant component of a different aminosugar that is different from glucosamine and comprise at least one C5-C7 saccharides unit with at least one amino group. Further, the amounts of aminosaccharides taught by Riordan overlaps with those taught in the

instant specification, therefore, Riordan's compositions inherently is able to protect at least one keratinous fiber against extrinsic damage.

**(10) Response to Argument**

Appellant's arguments with respect to this rejection have been fully considered but are not persuasive. Appellant argues that Riordan does not teach each and every element of the claims because Riordan's ingredient is N-acetyl-D-glucosamine and that is not a glucosamine within the scope of the instant claims. (see Arguments at pages 13-14). Indeed, Appellant appears to suggest that the claim element of "at least one glucosamine" is exclusive of N-acetyl-D-glucosamine. *Id.*

In response Examiner states that Appellant's arguments are not commensurate with the scope of the claims. Appellant should note that during patent prosecution Office personnel are to give claims their broadest reasonable interpretation in light of the supporting disclosure. See, e.g., *In re Zletz*, 893 F.2d 319, 321 - 22, 13 USPQ2d 1320, 1322 (Fed. Cir. 1989). However, "reading a claim in light of the specification, to thereby interpret limitations explicitly recited in the claim, is a quite different thing from 'reading limitations of the specification into a claim,' to thereby narrow the scope of the claim by implicitly adding disclosed limitations which have no express basis in the claim." *In re Prater*, 162 USPQ 541, 550 - 51 (CCPA 1969). Here Appellant advocates the impermissible importation of subject matter from the specification into the claim to narrow the scope of the pending claims.

Contrary to Appellant's position the instant recitation of "at least one glucosamine" in claim 78, does not exclude the glucosamine derivatives disclosed in

Art Unit: 1617

Riordan. In fact, the specification's description of such term is inclusive of all derivatives and salts thereof. (see the instant Specification at page 17, lines 4-5). See for example the instant specification at page 18, lines 15-19 where it describes "In one embodiment, the at least one compound is chosen from oligosaccharides derived from the at least one C<sub>5</sub> to C<sub>7</sub> saccharine unit substituted with at least one amino group which may be **further substituted with at least one group different from that least one amino group.**" In fact the specification at page 17, lines 15-20 includes derivatives such as those described by Riordan by stating that "**the at least one amino group may be chosen from N-acetyl amino groups.**" Hence, Appellant's pending claims do not exclude the glucosamine derivatives of Riordan. Subsequently, Appellant's arguments are not commensurate with the scope of the claims.

Appellant also argues that second element of the instant claim 79 requires an unsubstituted sugar. (see Remarks at page 15). Appellant asserts that the second element is "at least one additional sugar different from said at least one compound comprising at least one C<sub>5</sub> to C<sub>7</sub> saccharide unit substituted with at least one amino group and derivatives thereof, said at least one additional sugar is unsubstituted," (hereinafter "the second element of claim 79"). Appellant alleges that Riordan's hyaluronic acid does not meet such limitations. *Id.*

In response Examiner states that again Applicant's arguments are not commensurate with the scope of the claims. Indeed the second element of claim 79 includes a C<sub>5</sub> to C<sub>7</sub> saccharide unit with at least one amino group and derivatives

Art Unit: 1617

thereof, wherein such sugar is unsubstituted. However, Hyalouranic acid of Riordan meets such limitations, because the scope of the claims does not exclude it.

In fact, the instant Specification describes the scope of said sugar to include oligosaccharides (see page 19, line 22-page 20, line 5). Hyaluronic acid falls within the scope of the instant sugar because it is an oligosaccharide and as a whole it is an unsubstituted sugar (see Merck Index 11<sup>th</sup> ed. pages 751-752). Further, as shown in Merck, Hyalouronic acid moieties contain no substitution except at its amino group. The instant claims embrace the derivatized amino groups. (Attention is drawn to the recitation of "at least one amino group and derivatives thereof" in claim 79). Therefore, Hyalouronic acid of Riordan meets the second element of claim 79.

Moreover, Appellant's classification of Hyaluronic acid as a substituted sugar is in fact inconsistent with the arguments presented. Appellant appears to argue that the N-acetyl-D-glucosamine unit in hyalouronic acid is a substituted sugar. (see Remarks at page 18 , lines 9-12 of the Reply filed on Nov 19, 2004). Accordingly, Appellant attempts to interpret each saccharide unit within a hyalouronic acid molecule as a sugar. Even if such interpretation of claim is employed, Hyaluronic acid of Riordan meets the second element of claim 79, because as shown in Merck Index 11<sup>th</sup> ed. 4675 at pages 751-752, hyaluronic acid polymers must contain at least two unsubstituted sugar moiety (saccharide units). (see the formula at top of page 752).

Therefore, Appellant's arguments are not found persuasive and the rejection is maintained.

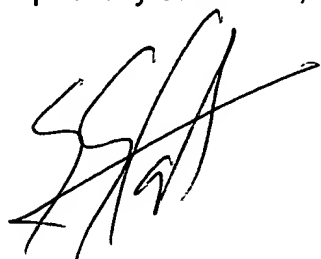
Art Unit: 1617

**(11) Related Proceeding(s) Appendix**

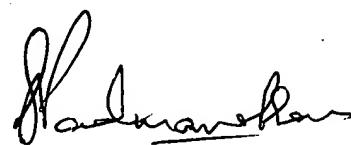
No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,




Shahnam Sharareh, JD, PharmD  
Patent Examiner AU 1617



SREENI PADMANABHAN  
SUPERVISORY PATENT EXAMINER

Conferees:



SHENGJUN WANG  
PRIMARY EXAMINER